

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

HUAWEI TECHNOLOGIES CO., LTD.,

Plaintiff,

v.

VERIZON COMMUNICATIONS, INC.,
VERIZON BUSINESS NETWORK
SERVICES, INC., VERIZON ENTERPRISE
SOLUTIONS, LLC, CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS, INC.,
VERIZON DATA SERVICES LLC, VERIZON
BUSINESS GLOBAL, LLC, AND VERIZON
SERVICES CORP., VERIZON PATENT AND
LICENSING INC.,

Defendants.

No. 2:20-cv-030-JRG

Jury Trial Demanded

~~FILED UNDER SEAL~~
PUBLIC VERSION

VERIZON BUSINESS NETWORK
SERVICES, INC., CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS, VERIZON
DATA SERVICES LLC, VERIZON
BUSINESS GLOBAL LLC, VERIZON
SERVICES CORP., AND VERIZON PATENT
AND LICENSING INC.

Counterclaim-Plaintiffs,

v.

HUAWEI TECHNOLOGIES CO., LTD.,
HUAWEI TECHNOLOGIES USA, INC.,
AND FUTUREWEI TECHNOLOGIES, INC.

Counterclaim-Defendants.

HUAWEI'S ANSWER TO VERIZON'S COUNTERCLAIMS

Plaintiffs and Counterclaim-Defendants Huawei Technologies Co., Ltd. (“HTCL”), Huawei Technologies USA, Inc. (“HTUS”), and Futurewei Technologies, Inc. (collectively Huawei”)

hereby respond to Defendants Verizon Business Network Services, Inc., Cellco Partnership d/b/a Verizon Wireless, Verizon Data Services LLC, Verizon Business Global LLC, Verizon Services Corp., And Verizon Patent And Licensing Inc. (collectively “Verizon”) Counterclaims to Huawei’s Complaint for Patent Infringement (“Counterclaims”). Except as expressly admitted below, Huawei denies each and every allegation set forth in the Counterclaims.

Additionally, Huawei gives notice under Federal Rule of Civil Procedure 44.1 that as a result of Verizon’s answer, affirmative defenses, and counterclaims, Huawei intends to raise issues about the laws of Switzerland.

Verizon begins its Answer with irrelevant and wrong statements in an attempt to distract from its infringement of Huawei’s patents. Verizon makes vague, inflammatory assertions against Huawei related to “play[ing] by the rules” and “tak[ing] credit,” but these allegations do not withstand scrutiny. For example, although Huawei has received over US\$1.4 billion in licensing revenue, it simultaneously has **paid** more than US\$6 billion in royalties for the legitimate use of other companies’ patents, nearly 80% of which was paid to U.S. companies.

Huawei respects the intellectual property rights of others, and asks that others, including Verizon, respect Huawei’s intellectual property rights in return. Verizon’s Answer is a transparent attempt to recast this case into something other than a showing of its own infringement.

There is only one relevant inquiry in the present litigation—Verizon’s use of Huawei’s patented inventions. Huawei is an innovator, having spent more than US\$70 billion on R&D in the past decade, including the reinvestment of 10-15% of its revenue each year into R&D. Over 80,000 employees in 2018 worked in its R&D department. These massive efforts have resulted in worldwide recognition of Huawei’s innovation through more than 87,000 issued patents by the end of 2018, including over 11,000 U.S. patents.

THE PARTIES

473. Huawei admits that Counterclaim Plaintiff Verizon Business Network Services, Inc. is a Delaware corporation and has designated CT Corporation, 1999 Bryan St., Suite 900, Dallas, Texas 75201 as its agent for service of process.¹

474. Huawei admits that Counterclaim Plaintiff Cellco Partnership d/b/a Verizon Wireless is a General Partnership with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920.

475. Huawei admits that Counterclaim Plaintiff Verizon Data Services LLC is a Delaware limited liability company with its principal place of business at One East Telecom Parkway, B3E, Temple Terrace, Florida 33637.

476. Huawei admits that Counterclaim Plaintiff Verizon Business Global, LLC is a Delaware corporation with a principal place of business at 899 Heathrow Park Lane, Lake Mary, Florida 32746.

477. Huawei admits that Counterclaim Plaintiff Verizon Services Corp. is a Delaware corporation with its principal place of business at 22001 Loudoun County Parkway, Ashburn, Virginia 20146.

478. Huawei admits that Counterclaim Plaintiff Verizon Patent and Licensing Inc. is a Delaware corporation with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920.

479. Huawei admits that Counterclaim Defendant Huawei Technologies Co. Ltd. is a Chinese corporation with its principal place of business at Bantian, Longgang District, Shenzhen, People's Republic of China.

¹ Verizon has chosen to number the paragraphs of its Amended Counterclaims starting at 473. Accordingly, Huawei has numbered the paragraphs of its answer in the same fashion, so that each numbered paragraph responds to the corresponding numbered paragraph of Verizon's Counterclaims.

480. Huawei admits that Counterclaim Defendant Huawei Technologies USA, Inc. is a Texas corporation with its principal place of business at 5700 Tennyson Parkway Suite 600, Plano, TX 75024.

481. Huawei admits that Counterclaim Defendant Futurewei Technologies, Inc. is a Texas corporation, but denies its principal place of business is at 5340 Legacy Drive Suite 175, Plano, TX 75024. Huawei disputes, however, that Futurewei Technologies, Inc. is a proper party to this action.

JURISDICTION AND VENUE

482. Huawei admits that Verizon's Counterclaims purport to arise under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*, and the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 *et seq.* Huawei denies that Verizon's counterclaims are meritorious under the patent laws of the United States. Huawei admits that this Court has subject matter jurisdiction over Verizon's Counterclaims under 28 U.S.C. §§ 1331, 1338, 2201, and 2202. Huawei also admits that an actual controversy exists under the Declaratory Judgment Act, because Huawei has asserted and is asserting infringement of U.S. Patent Nos. 8,270,433 ("the '433 patent"); 9,014,151 ("the '151 patent"); 8,406,236 ("the '236 patent"); 8,824,505 ("the '505 patent"); and 9,312,982 ("the '982 patent") by Verizon, but denies that Verizon is entitled to any relief.

483. For purposes of this action only, HTCL admits that it is subject to personal jurisdiction with respect to this action by virtue of its Complaint.

484. Huawei admits that venue is proper in this District pursuant to 28 U.S.C. §§ 1391 and 1400(b).

FACTUAL BACKGROUND

485. Huawei admits that the title appearing on the face of U.S. Patent No. 8,121,111

(“the ‘111 patent”) is “Method and System for Measuring Latency,” that the ‘111 patent bears on its face, an issue date of February 21, 2012, and that a purported copy of the ‘111 patent was attached to the Complaint. To the extent the remainder of paragraph 485 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the remaining allegations of paragraph 485 of the Complaint.

486. Huawei admits that the title appearing on the face of U.S. Patent No. 8,983,288 (“the ‘288 patent”) is “Method and System for Measuring Latency,” that the ‘288 patent bears, on its face, an issue date of March 17, 2015, and that a purported copy of the ‘288 patent was attached to the Counterclaims. To the extent the remainder of paragraph 486 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the remaining allegations of paragraph 486 of the Counterclaims.

487. Huawei admits that HTUS uses, sells, offers to sell, and/or imports equipment compatible with the ITU’s Telecommunication Standardization Sector (“ITU-T”), including the ITU-T’s G.709: Interfaces for the optical transport network standard (“G.709” or “the G.709 Standard”), including OTN products and equipment such as optical switching systems.

488. Huawei admits that the products listed in paragraph 488 of the Counterclaims are HTCL and HTUS products advertised as complying with at least one version and/or some portion of the G.709 standard. Huawei denies that each of the listed products includes the features accused of infringement in the Counterclaims, and it denies the remaining allegations in this paragraph.

489. Huawei admits that according to information published on the websites of Huawei and its subsidiaries, HTCL and HTUS, design and develop, and supply at least some of the Accused Huawei Products for use, sale, offers to sell, and/or importation. Huawei denies the remainder of paragraph 489 of the counterclaims with respect to Futurewei Technologies, Inc.

490. Huawei admits that technical standards play a critical role in the development of

optical networking. In general, technical standards—such as those for optical networking—have the potential to encourage innovation and promote competition among equipment suppliers and network providers in the optical networking industry.

491. Huawei admits that the technical specifications for most standards are published and broadly available. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 491 and, on that basis, denies them.

492. Huawei admits that technical standards can lead to various benefits including increased competition, increased manufacturing volumes, decreased costs and reduced switching costs. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 492 and, on that basis, denies them.

493. Huawei admits that certain aspects of standards may be—and often are—claimed by patents. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 493 and, on that basis, denies them.

494. Huawei admits that the term “patent hold-up” has been used to refer to a concern that patent owners could seek excessive royalties with respect to some patents related to standards. Huawei also admits that the related term “patent holdout” has been used to refer to a concern that implementers of standards refuse to negotiate in good faith with an innovator for licenses to patents infringed by the implementer, such that the innovator is forced to bear significant cost in time and money to obtain a license through court order or otherwise give up. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 494 and, on that basis, denies them.

495. Huawei admits that at least some SSOs have adopted IPR policies. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 495 and, on that basis, denies them.

496. Huawei admits that participants in ITU-T standardization efforts should comply with ITU-T policies. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 496 and, on that basis, denies them.

497. Huawei admits that Optical networks have been implemented using several standards, including the ITU-T, G.709 Standard. Huawei admits that the ITU-T has adopted IPR policies. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 497 and, on that basis, denies them.

498. Huawei admits that the ITU-T has developed a “code of practice” regarding IPR, entitled “Common Patent Policy for ITU-T/ITU-R/ISO/IEC.” Huawei admits that this document states that “any party participating in the work of ITU, ISO or IEC should, from the outset, draw the attention of the Director of ITU-TSB, the Director of ITU-BR, or the offices of the CEOs of ISO or IEC, respectively, to any known patent or to any known pending patent application, either their own or of other organizations, although ITU, ISO or IEC are unable to verify the validity of any such information.” Huawei also admits that the code of practice also states:

If a Recommendation | Deliverable is developed and such information as referred to in paragraph 1 has been disclosed, three different situations may arise:

- 21 The patent holder is willing to negotiate licences free of charge with other parties on a non-discriminatory basis on reasonable terms and conditions. Such negotiations are left to the parties concerned and are performed outside ITU-T/ITU-R/ISO/IEC.
- 22 The patent holder is willing to negotiate licences with other parties on a non-discriminatory basis on reasonable terms and conditions. Such negotiations are left to the parties concerned and are performed outside ITU-T/ITU-R/ISO/IEC.
- 23 The patent holder is not willing to comply with the provisions of either paragraph 2.1 or paragraph 2.2; in such case, the Recommendation | Deliverable shall not include provisions depending on the patent.

Huawei admits that ITU-T also publishes “Guidelines for Implementation of the Common Patent Policy,” and that this document states “The Patent Policy encourages the early disclosure

and identification of Patents that may relate to Recommendations/Deliverables under development. In doing so, greater efficiency in standards development is possible and potential patent rights problems can be avoided.” Huawei denies the remainder of paragraph 498._

499. Huawei admits that Huawei personnel frequently participated in ITU-T Working Groups and made contributions that were adopted into certain standards. Huawei denies all of the remaining allegations in paragraph 499.

- a. Huawei admits that it asserts that the ‘505 Patent, which is entitled “a method and apparatus for transporting client signals in optical transport network,” is essential to Sections 7, 11, 12, 13, 19, 20 and Annex D of the G.709 standard. Huawei admits that the ‘505 patent claims priority to a Chinese patent application filed on April 17, 2007. Huawei admits that Limin Dong and Qiuyou Wu are the named inventors of the ‘505 patent. Huawei admits that on or about May, 2007, Huawei made contributions to SG15 entitled “Proposals on a flexible multiplexing/mapping scheme,” (Contribution 458) and “Considerations on the evolution of OTN,” (Contribution 457) which listed Angel Molina, Yonggang Cheng, Limin Dong and Qiuyou Wu of Huawei as contacts. Huawei further admits that “Proposals on a flexible multiplexing/mapping scheme” discloses the subject matter of “wherein the OPUk frame includes an overhead containing a tributary slot MultiFrame Indicator (MFI-TS) byte” and “wherein the OPUk frame includes an OPUk payload area that includes a total of 4 rows and 3808 columns.” Huawei further admits that on or about October, 2007, Huawei, ZTE, AMCC, and PMC-Sierra submitted a contribution to SG15 entitled “Considerations on bit rate agnostic mapping standardization,” (WD06) which listed as contacts Huub van Helvoort of Huawei, Yi Zhao of ZTE, Tracy Ma of AMCC, and Steve Gorshe of PMC-Sierra as contacts. Huawei admits that it contends that limitations of claims of the

‘505 patent read on portions of the G.709 standard that were adopted in December 2009. Huawei admits that Huawei representatives attended the following ITU-T meetings: SG15 Plenary Meeting, Geneva, Switzerland (June 4-15, 2007); Q11/15 Interim Meeting, Shenzhen, China (October 15-19, 2007); SG15 Plenary Meeting, Geneva, Switzerland (February 11-22, 2008); Q11/15 Interim Meeting, Sophia Antipolis, France (June 2-6, 2008); Q11/15 and Q9/15 Joint Meeting, Jeju Island, South Korea (September 22-26, 2008); SG15 Plenary Meeting, Geneva, Switzerland (December 1-12, 2008); Q11/15 Interim Meeting, Milpitas, California (March 16-20, 2009); Q11/15 Interim Meeting, Sophia Antipolis, France (May 25-29, 2009); SG15 Plenary Meeting, Geneva, Switzerland (September 28 – October 9, 2009), and that Qiuyou Wu and Huub van Helvoort attended certain of those meetings. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(a).

- b. Huawei admits that it asserts the ‘236 patent, which is entitled “ method and apparatus for transporting client signal in optical transport network,” is essential to Sections 7, 19, 20 and Annex D of the G.709 standard. Huawei admits that the ‘236 patent claims priority from a Chinese patent application filed on June 15, 2007. Huawei further admits that on or about October, 2007, Huawei, ZTE, AMCC, and PMC-Sierra submitted a contribution to SG15 entitled “Considerations on bit rate agnostic mapping standardization,” (WD06) which listed as contacts Huub van Helvoort of Huawei, Yi Zhao of ZTE, Tracy Ma of AMCC, and Steve Gorshe of PMC-Sierra as contacts. Huawei further admits that on or about January 31, 2008, Huawei submitted proposals to SG15 entitled “Behavior of Cn transport for GMP” (Contribution 816) and

“Consideration about NG OTN hierarchy” (Contribution 819), each of which listed as contacts Huub van Helvoort, Qiuyou Wu, and Limin Dong of Huawei. Huawei admits that at least the claimed “first series of bit positions” and “second series of bit positions” are found in these proposals. Huawei admits that Huawei representatives attended the following ITU-T meetings: SG15 Plenary Meeting, Geneva, Switzerland (June 4-15, 2007); Q11/15 Interim Meeting, Shenzhen, China (October 15-19, 2007); SG15 Plenary Meeting, Geneva, Switzerland (February 11-22, 2008); Q11/15 Interim Meeting, Sophia Antipolis, France (June 2-6, 2008); Q11/15 and Q9/15 Joint Meeting, Jeju Island, South Korea (September 22-26, 2008); SG15 Plenary Meeting, Geneva, Switzerland (December 1-12, 2008); Q11/15 Interim Meeting, Milpitas, California (March 16-20, 2009); Q11/15 Interim Meeting, Sophia Antipolis, France (May 25-29, 2009); SG15 Plenary Meeting, Geneva, Switzerland (September 28 – October 9, 2009), and that Qiuyou Wu and Huub van Helvoort attended certain of those meetings.

Huawei admits that it contends that technology covered by the ‘236 patent was adopted into the G.709 standard in December 2009. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020.

Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(b).

- c. Huawei admits that it asserts that the ‘151 patent, which is entitled “method and apparatus for transmitting low-rate traffic signal in Optical Transport Network,” is essential to Sections 6, 7, 12, 15, 17, and 19 of the G.709 standard. Huawei admits that the 151 patent claims priority to a Chinese patent application filed on August 11, 2004.

Huawei admits that Huawei representative Maarten Vissers was the editor for Study Group 15 with responsibility for G.709 during the 2005-2008 study period and that he

participated in the Q11/15 Interim Meeting in Sophia Antipolis on June 2-6, 2008.

Huawei admits on August 11, 2008, Maarten Visser participated in email discussions with other members of SG15 concerning proposed changes to G.709 that included technical aspects referenced in one or more claims of the '151 patent. Huawei admits that it contends that technology covered by the '151 patent is included in the December 2009 and later versions of the G.709 standard. Huawei further incorporates by reference its responses to Verizon's Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(c).

- d. Huawei admits that the '982 patent, which is entitled "method and apparatus for mapping and de-mapping in an Optical Transport Network" is essential to Section 19 of the G.709 standard. Huawei admits that the '982 patent claims priority from a Chinese patent application filed on March 9, 2009. Huawei admits that it contends that technology covered by the '982 patent was adopted into the G.709 standard in December 2009. Huawei further incorporates by reference its responses to Verizon's Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(d).
- e. Huawei admits that the '433 patent is entitled "sending method, receiving and processing method and apparatus for adapting payload bandwidth for data transmission," is essential to Sections 11, 17 and Annex B of the G.709 standard. Huawei admits that the '433 patent claims priority from a Chinese patent application filed on June 21, 2007. Huawei admits that Trey Malpass representing Huawei attended an IEEE 802.3 Higher Speed Study Group meeting in Seoul, Korea on September 11-13, 2007. Huawei admits that Trey Malpass attended an IEEE 802.3

Higher Speed Study Group in San Francisco, CA in July 16-19, 2007. Huawei admits that in January 2008, Huawei submitted a contribution to study group 15 entitled “Independently Transport of Four 512/513b Transcoded 10GbEs in standard ODU3” (Contribution 824), which listed Huub van Helvoort, Qiwen Zhong and Zhangzhen Jiang, the inventor of the ‘433 patent as contacts. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(e).

- f. Huawei admits that the ‘253 patent is entitled “a method, apparatus and system for Ethernet Ring Protection (ERP)” is essential to Section 10 of the G.8032v2 standard. Huawei admits that the ‘253 patent claims priority from a Chinese patent application filed on January 23, 2007. Huawei admits that it submitted a contribution entitled “E-PURP: Ethernet – Passive link-Up Ring Protection” (WD09), with listed contacts Hao Long and Yang Yang, to SG15 during discussions regarding G.8032v2, and that WD09 is related to the technology of the ‘253 patent. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(f).
- g. Huawei admits that the ‘485 patent is entitled “a method, apparatus and system for Ethernet Ring Protection (ERP)” is essential to Appendix VIII of the G.8032v2 standard. Huawei admits that the ‘485 patent claims priority from a Chinese patent application filed on January 23, 2007. Huawei admits that it submitted a contribution entitled “Proposals on optimizing flush operation in in Ethernet ring protection” (WD09), with listed contacts Hao Long and Yang Yang, to SG15 during discussions

regarding G.8032v2, and that WD09 is related to the technology of the ‘485 patent.

Huawei admits that it submitted a contribution entitled “ Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 499(g).

500. Huawei denies the allegations in paragraph 500 of the Counterclaims.

a. Huawei admits that the inventions and subject matter of the ‘505 patent are disclosed in the ‘505 patent. The characterizations of the ‘505 patent contained in paragraph 500(a) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the ‘505 patent can be ascertained by reading the full specification of the ‘505 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the ‘505 patent, those proposals were rejected and/or rely upon the technology of the ‘505 patent. Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘505 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 500(a) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 500(a) and, on that basis, denies them.

b. Huawei admits that the inventions and subject matter of the ‘236 patent are disclosed in the ‘236 patent. The characterizations of the ‘236 patent contained in paragraph 500(b) of the Counterclaims are incomplete and misleading, and therefore Huawei

denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '236 patent can be ascertained by reading the full specification of the '236 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '236 patent, those proposals were rejected and/or rely upon the technology of the '236 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '236 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 500(b) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 500(b) and, on that basis, denies them.

- c. Huawei admits that the inventions and subject matter of the '151 patent are disclosed in the '151 patent. The characterizations of the '151 patent contained in paragraph 500(c) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '151 patent can be ascertained by reading the full specification of the '151 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '151 patent, those proposals were rejected and/or rely upon the technology of the '151 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '151 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 500(c) of the Counterclaims sets forth conclusions of law, no response is required. Except to the

extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 500(c) and, on that basis, denies them.

- d. Huawei admits that the inventions and subject matter of the '982 patent are disclosed in the '982 patent. The characterizations of the '982 patent contained in paragraph 500(d) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '982 patent can be ascertained by reading the full specification of the '982 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '982 patent, those proposals were rejected and/or rely upon the technology of the '982 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '982 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 500(d) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 500(d) and, on that basis, denies them.
- e. Huawei admits that the inventions and subject matter of the '433 patent are disclosed in the '433 patent. The characterizations of the '433 patent contained in paragraph 500(e) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. Huawei states that the methods described in the '433 patent can be ascertained by reading the full specification of the '433 patent. While certain proposals were considered for the

G.709 standard in addition to the technology of the '433 patent, those proposals were rejected and/or rely upon the technology of the '433 patent. Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the '433 patent were or are available for adoption into the G.709 standard by the SG15 study group. Huawei admits that it filed Chinese patent application CN200710129552.2 to which U.S. Pat. No. 8,238,373 entitled “Method and device for mapping Ethernet code blocks to OTN for transmission,” claims priority, and that the abstract of the 373 patent includes the sentence “Thus, specific solutions for mapping 40 G Ethernet code blocks having an encoding rate lower than a minimum payload bandwidth of the OPU3 to the OTN for transmission is provided.” Huawei further admits that in January 2008, Hauwei submitted ITU-T Contribution 824, which includes the sentence “There are many solutions to do the Multiplexing and Demultiplexing at the Mapper/Demapper of the ODU3.” Huawei admits that in January 2008, Huawei submitted ITU-T Contribution 813 entitled “2048/2049B transcoded 10GbE in ODU2,” which includes the sentence “many contributions were submitted for the ITU-T Q11/15 meeting in Shenzhen showing a possible way to map 4x10G Base-R into standard ODU3 using 512B/513B transcoding,” and the sentence “The 512/513b Transcoding has been extensively discussed for enabling transport of 40GE and 4x10GE in an ODU3.” Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the '433 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 500(e) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of

paragraph 500(e) and, on that basis, denies them.

f. Huawei admits that the inventions and subject matter of the '253 patent are disclosed in the '253 patent. The characterizations of the '253 patent contained in paragraph 500(f) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. .

 Huawei states that the methods described in the '253 patent can be ascertained by reading the full specification of the '253 patent. While certain proposals were considered for the G.8032 standard in addition to the technology of the '253 patent, those proposals were rejected and/or rely upon the technology of the '253 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '253 patent were or are available for adoption into the G.8032 standard by the SG15 study group. To the extent paragraph 500(f) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 500(f) and, on that basis, denies them.

g. Huawei admits that the inventions and subject matter of the '485 patent are disclosed in the '485 patent. The characterizations of the '485 patent contained in paragraph 500(g) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. .

 Huawei states that the methods described in the '485 patent can be ascertained by reading the full specification of the '485 patent. While certain proposals were considered for the G.8032 standard in addition to the technology of the '485 patent, those proposals were rejected and/or rely upon the technology of the '485 patent.

Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘485 patent were or are available for adoption into the G.8032 standard by the SG15 study group. To the extent paragraph 500(g) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 500(g) and, on that basis, denies them.

501. Denied.

502. Huawei admits that Huawei submitted general licensing declarations to the ITU-T in accordance with ITU-T’s Common Patent Policy. To the extent this paragraph contains additional allegations, Huawei denies those allegations.

503. Huawei admits that it made the following declaration to the ITU-T on September 8, 2006:



2 The Patent Holder is prepared to grant – on the basis of reciprocity for the relevant ITU-T Recommendation(s) – a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the relevant ITU-T Recommendation(s).

Negotiations are left to the parties concerned and are performed outside the ITU-T.

Except to the extent admitted above, Huawei denies the remaining factual allegations of paragraph 503.

504. Huawei admits that it submitted to the ITU-T a December 23, 2011 letter from Wei Kang, IP Manager at Huawei Technologies Co., Ltd., a December 10, 2008 Letter from Huawei Technologies Co., Ltd, Director of Licensing, Intellectual Property Department, a April 23, 2012 letter from Wei Kang, IP Manager at Huawei Technologies Co., Ltd., an October 17, 2016 letter from Wei Kang, IP Manager at Huawei Technologies Co., Ltd. including the following declaration with respect to the G.709 recommendation:

Licensing declaration:

The Patent Holder believes that it holds granted and/or pending applications for patents, the use of which would be required to implement the above document and hereby declares, in accordance with the Common Patent Policy for ITU-T/ITU-R/ISO/IEC, that (check one box only):

1. The Patent Holder is prepared to grant a free of charge license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and under other reasonable terms and conditions to make, use, and sell implementations of the above document.

Negotiations are left to the parties concerned and are performed outside the ITU-T, ITU-R, ISO or IEC. *Also mark here if the Patent Holder's willingness to license is conditioned on reciprocity for the above document.*

Also mark here if the Patent Holder reserves the right to license on reasonable terms and conditions (but not free of charge) to applicants who are only willing to license their patent claims, whose use would be required to implement the above document, on reasonable terms and conditions (but not free of charge).

2. The Patent Holder is prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the above document.

Negotiations are left to the parties concerned and are performed outside the ITU-T, ITU-R, ISO, or IEC.

Also mark here if the Patent Holder's willingness to license is conditioned on reciprocity for the above document.

Except to the extent admitted above, Huawei denies the remaining allegations in paragraph 504 of the Counterclaims.

505. Huawei denies that it has not met its FRAND Commitments to ITU and thus the allegations of paragraph 505 regarding an alleged failure to inform ITU-T are nonsensical in that it would never make sense for Huawei to inform ITU-T of something that did not occur and is not true. Huawei denies all remaining allegations of paragraph 505.

506. Denied

507. Denied

508. Huawei admits that none of Huawei's FRAND declarations covering the asserted patents stated that Huawei would take the position that parties practicing the relevant standard were not licensed or entitled to a FRAND license to its claimed essential patents, refuse to offer FRAND license terms to certain parties, or attempt to prevent parties from practicing the relevant standard. Huawei denies that has taken the position that parties practicing the relevant standard were not entitled to a FRAND license to its claimed essential patents, that it has refused to offer FRAND

license terms to certain parties, or that it has attempted to prevent parties from practicing any such relevant standard. Except to the extent admitted above, Huawei denies the remaining allegations in paragraph 508 of the Counterclaims.

509. To the extent paragraph 509 of the Counterclaims sets forth conclusions of law, no response is required. Huawei lacks sufficient knowledge and information to form a belief about the truth of the factual allegations in paragraph 509 of the Counterclaims and, on that basis, denies them.

510. Denied.

511. Huawei admits that HTCL has filed this action for patent infringement against Verizon. Except to the extent admitted above, Huawei denies the remaining allegations in paragraph 31 of the Counterclaims.

512. Huawei admits that it has not included the patents-in-suit in any other lawsuits. Except to the extent admitted above, Huawei denies the remaining allegations in paragraph 512 of the Counterclaims. In particular, Huawei denies that the ITU-T RAND commitment precludes a patent owner from filing an infringement lawsuit against a subset of potential infringers. Huawei filed the present lawsuit because its year-long negotiations with Verizon have demonstrated that Verizon is unwilling to pay a reasonable royalty for its use of Huawei's patented technology.

513. Denied.

514. To the extent paragraph 514 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 514 and, on that basis, denies them.

515. Huawei admits that during its negotiations with Verizon, Verizon has asked for a variety of types of information including questions regarding Huawei's impacted revenue assumptions, information about other licensees, including copies of license agreements. Huawei

denies that these requests were limited to basic information necessary for Verizion to determine whether any rate that Huawei quotes is in fact fair, reasonable, and non-discriminatory and in fact went far beyond what was necessary for that purpose. Huawei further states that it has provided the requested information to the best of its ability, subject to its confidentiality obligations to other licensees. Huawei otherwise denies the allegations in paragraph 515.

516. Denied.

517. Denied.

COUNT ONE

(Noninfringement of U.S. Patent No. 8,121,111)

518. Huawei incorporates its responses to paragraphs 473-517 as if fully set forth herein.

519. Huawei admits that the title appearing on the face of U.S. Patent No. 8,121,111 (“the ‘111 patent”) is “Method and System for Measuring Latency,” that the ‘111 patent bears, on its face, an issue date of February 21, 2012, and that a purported copy of the ‘111 patent was attached to the Complaint. To the extent the remainder of paragraph 36 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the remaining allegations of paragraph 519 of the Complaint.

520. To the extent paragraph 520 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 37 and, on that basis, denies them.

521. To the extent paragraph 521 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 38 of the Complaint.

522. To the extent paragraph 522 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this

paragraph.

523. Huawei admits that paragraph 523 of the Counterclaims recites claim 1 of the '111 patent. To the extent paragraph 523 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the remaining allegations in this paragraph, except to the extent admitted above.

524. To the extent paragraph 524 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

525. To the extent paragraph 525 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

526. To the extent paragraph 526 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

527. To the extent paragraph 527 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

528. To the extent paragraph 528 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

529. To the extent paragraph 529 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

530. To the extent paragraph 530 of the Counterclaims sets forth conclusions of law, no

response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

531. To the extent paragraph 531 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei admits that U.S. Patent Publication No. 2008/0219661 was cited during prosecution of HTCL's U.S. Patent No. 9,838,109. Huawei denies that U.S. Patent Publication No. 2008/0219661 is the publication number for the '111 patent. Huawei admits that it has had actual knowledge of the '111 patent since the filing of these Counterclaims. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 49 and, on that basis, denies them.

532. To the extent paragraph 532 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

533. To the extent paragraph 533 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

534. To the extent paragraph 534 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

535. Huawei admits that it provides instructions to its customers regarding how to use the Accused Huawei Products. Huawei denies the remaining allegations in paragraph 535 of the Counterclaims.

536. To the extent paragraph 536 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

537. To the extent paragraph 537 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

538. To the extent paragraph 538 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

539. Denied.

540. To the extent paragraph 540 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

COUNT TWO
(Noninfringement of U.S. Patent No. 8,983,288)

541. Huawei incorporates its responses to paragraphs 473-540 as if fully set forth herein.

542. Huawei admits that the title appearing on the face of U.S. Patent No. 8,983,288 (“the ’288 patent”) is “Method and System for Measuring Latency,” that the ’288 patent bears, on its face, an issue date of March 17, 2015, and that a purported copy of the ’288 patent was attached to the Complaint. To the extent the remainder of paragraph 542 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the remaining allegations of paragraph 60 of the Complaint.

543. To the extent paragraph 543 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 61 and, on that basis, denies them.

544. To the extent paragraph 544 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and

information to form a belief about the truth of paragraph 544 of the Complaint.

545. To the extent paragraph 545 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

546. To the extent paragraph 64 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

547. Huawei admits that paragraph 547 of the counterclaims recites claim 1 of the '288 patent.

548. To the extent paragraph 548 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

549. To the extent paragraph 549 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

550. To the extent paragraph 550 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

551. To the extent paragraph 551 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

552. To the extent paragraph 552 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

553. To the extent paragraph 553 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

554. To the extent paragraph 554 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

555. To the extent paragraph 555 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei admits that U.S. Patent Publication No. 2008/0219661 was cited during the prosecution of HTCL's U.S. Patent No. 9,838,109. Huawei denies that U.S. Patent Publication No. 2008/0219661 is the publication number for the parent application of the '288 patent. Huawei admits that it has had actual knowledge of the '288 patent since the filing of these Counterclaims. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 555 and, on that basis, denies them.

556. To the extent paragraph 556 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

557. To the extent paragraph 557 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

558. To the extent paragraph 558 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

559. Huawei admits that it provides instructions its customers regarding how to use the

Accused Huawei Products. Huawei denies the remaining allegations in paragraph 559 of the Counterclaims.

560. To the extent paragraph 560 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

561. To the extent paragraph 561 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

562. To the extent paragraph 562 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

563. Denied.

564. To the extent paragraph 564 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei denies the allegations in this paragraph.

COUNT THREE (FRAND)

565. Huawei incorporates its responses to paragraphs 473-564 as if fully set forth herein.

566. Huawei, admits that it has participated in the development and implementation of industry standards through their membership and participation in standard setting organizations (“SSOs”), such as the ITU-T. Huawei admits that it submitted the letters to the ITU-T referenced above in paragraphs 29 and 30. The remaining allegations in paragraph 84 of the Counterclaims set forth conclusions of law for which no response is required.

567. Paragraph 567 of the Counterclaims set forth conclusions of law for which no

response is required.

568. Paragraph 568 of the Counterclaims set forth conclusions of law for which no response is required.

569. Paragraph 569 of the Counterclaims set forth conclusions of law for which no response is required.

570. Huawei admits that there is an actual controversy, within the meaning of 28 U.S.C. §§ 2201 and 2202, between Verizon and Huawei as to whether Verizon has infringed HTCL's patents and as to the appropriate relief for any such infringement, but denies that Verizon is entitled to any relief.

571. Huawei admits that Verizon is requesting a judicial determination and declaration that Verizon is entitled to a license on FRAND and/or RAND terms to any one or more of the asserted patents deemed essential to an implementation of any standard or specification set forth by the ITU-T.

COUNT FOUR
(Alleged Breach of Contract—FRAND)

572. Huawei incorporates its responses to paragraphs 473-571 as if fully set forth herein.

573. Huawei, admits that it has participated in the development and implementation of industry standards through their membership and participation in standard setting organizations (“SSOs”), such as the ITU-T. Huawei admits that it submitted the letters to the ITU-T referenced above in paragraphs 503 and 504. The remaining allegations in paragraph 573 of the Counterclaims set forth conclusions of law for which no response is required.

574. Paragraph 574 of the Counterclaims set forth conclusions of law for which no response is required.

575. Paragraph 575 of the Counterclaims set forth conclusions of law for which no

response is required.

576. Denied.

577. Denied.

578. Denied

579. Denied.

COUNT FIVE
(Alleged Unfair Competition Under Texas Law)

580. Huawei incorporates its responses to paragraphs 473-571 as if fully set forth herein.

581. Denied.

582. Admitted.

583. Huawei lacks sufficient knowledge and information to form a belief about the truth of the allegations in paragraph 583 and, on that basis, denies them.

584. Huawei admits that its representatives made contributions to the ITU-T G.709 and G.8032 Recommendations and that Huawei has filed patent applications that are directed aspects of certain of those contributions. Except to the extent admitted above, Huawei denies any remaining allegations of paragraph 584.

585. Denied. Huawei did not file patent applications “simultaneously with Study Group contributions.” In accordance with ITU-T policies and practices, Huawei specifically disclosed to ITU-T that it holds granted and/or pending applications for patents, the use of which would be required to implement G.709 and G.8032. To the extent the allegations of paragraph 585 imply that Huawei was obligated to disclose specific patents or patent applications to ITU-T, Huawei denies that implication. Huawei states that it fully complied with ITU-T policies concerning disclosure of patents and patent applications in connection with its participation in ITU-T study groups. Those policies do not require the identification of specific patent applications or patent numbers if a participant discloses that it holds granted and/or pending applications for patents, the

use of which would be required to implement particular Recommendations and offers to grant – on the basis of reciprocity for the relevant ITU-T Recommendation(s) – a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the relevant ITU-T Recommendation(s).. Huawei has complied with that requirement, and thus was not obligated to disclose any specific patents or applications to ITU-T. Accordingly, and consistent with ITU-T policy and practice, Huawei has not identified specific patents or applications to ITU-T. Huawei's published patents and applications are, however, readily searchable by potential implementers of ITU-T standards.

586. Denied.

587. Huawei admits that paragraph 587 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 587 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

588. Huawei admits that paragraph 588 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 588 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

589. Huawei admits that paragraph 589 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 589 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

590. Huawei admits that paragraph 590 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 590 are intended to imply that Huawei had an obligation to disclose specific patents or

patent applications to ITU-T, Huawei denies any such implication.

591. Huawei admits that the Common Patent Policy for ITU-T/ITU-R/ISO/IEC and the March 15, 2007 Guidelines for Implementation of the Common Patent Policy describe the ITU-T's disclosure policy and requirements as of the dates of their promulgation, and otherwise denies the allegations of paragraph 591.

592. Huawei admits that paragraph 592 accurately quotes language from the March 15, 2007 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 592 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

593. Huawei admits that paragraph 593 accurately quotes language from the March 15, 2007 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 593 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

594. Huawei admits that paragraph 594 accurately quotes language from the November 2, 2005 and March 15, 2007 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 594 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

595. Huawei lacks sufficient knowledge and information to form a belief about the truth of the allegations in paragraph 595 and, on that basis, denies them.

596. Denied.

597. Denied.

598. Denied. Huawei did not file patent applications "simultaneously with Study Group contributions." In accordance with ITU-T policies and practices, Huawei specifically disclosed to ITU-T that it holds granted and/or pending applications for patents, the use of which would be

required to implement G.709 and G.8032. To the extent the allegations of paragraph 598 imply that Huawei was obligated to disclose specific patents or patent applications to ITU-T, Huawei denies that implication. Huawei states that it fully complied with ITU-T policies concerning disclosure of patents and patent applications in connection with its participation in ITU-T study groups. Those policies do not require the identification of specific patent applications or patent numbers if a participant discloses that it holds granted and/or pending applications for patents, the use of which would be required to implement particular Recommendations and offers to grant – on the basis of reciprocity for the relevant ITU-T Recommendation(s) – a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the relevant ITU-T Recommendation(s).. Huawei has complied with that requirement, and thus was not obligated to disclose any specific patents or applications to ITU-T. Accordingly, and consistent with ITU-T policy and practice, Huawei has not identified specific patents or applications to ITU-T. Huawei's published patents and applications are, however, readily searchable by potential implementers of ITU-T standards.

599. Denied.

600. Denied.

601. Huawei admits that Huawei personnel frequently participated in ITU-T Working Groups and made contributions that were adopted into certain standards. Huawei denies all of the remaining allegations in paragraph 601.

a. Huawei admits that it asserts that the '505 Patent, which is entitled "a method and apparatus for transporting client signals in optical transport network," is essential to Sections 7, 11, 12, 13, 19, 20 and Annex D of the G.709 standard. Huawei admits that the '505 patent claims priority to a Chinese patent application filed on April 17, 2007. Huawei admits that Limin Dong and Qiuyou Wu are the named inventors of the '505 patent. Huawei admits that on or about May,

2007, Huawei made contributions to SG15 entitled “Proposals on a flexible multiplexing/mapping scheme,” (Contribution 458) and “Considerations on the evolution of OTN,” (Contribution 457) which listed Angel Molina, Yonggang Cheng, Limin Dong and Qiuyou Wu of Huawei as contacts. Huawei further admits that “Proposals on a flexible multiplexing/mapping scheme” discloses the subject matter of “wherein the OPUk frame includes an overhead containing a tributary slot MultiFrame Indicator (MFI-TS) byte” and “wherein the OPUk frame includes an OPUk payload area that includes a total of 4 rows and 3808 columns.” Huawei further admits that on or about October, 2007, Huawei, ZTE, AMCC, and PMC-Sierra submitted a contribution to SG15 entitled “Considerations on bit rate agnostic mapping standardization,” (WD06) which listed as contacts Huub van Helvoort of Huawei, Yi Zhao of ZTE, Tracy Ma of AMCC, and Steve Gorshe of PMC-Sierra as contacts. Huawei admits that it contends that limitations of claims of the ‘505 patent read on portions of the G.709 standard that were adopted in December 2009. Huawei admits that Huawei representatives attended the following ITU-T meetings: SG15 Plenary Meeting, Geneva, Switzerland (June 4-15, 2007); Q11/15 Interim Meeting, Shenzhen, China (October 15-19, 2007); SG15 Plenary Meeting, Geneva, Switzerland (February 11-22, 2008); Q11/15 Interim Meeting, Sophia Antipolis, France (June 2-6, 2008); Q11/15 and Q9/15 Joint Meeting, Jeju Island, South Korea (September 22-26, 2008); SG15 Plenary Meeting, Geneva, Switzerland (December 1-12, 2008); Q11/15 Interim Meeting, Milpitas, California (March 16-20, 2009); Q11/15 Interim Meeting, Sophia Antipolis, France (May 25-29, 2009); SG15 Plenary Meeting, Geneva, Switzerland (September 28 – October 9, 2009), and that Qiuyou Wu and Huub van Helvoort attended certain of those meetings. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(a).

b. Huawei admits that it asserts the ‘236 patent, which is entitled “method and

apparatus for transporting client signal in optical transport network,” is essential to Sections 7, 19, 20 and Annex D of the G.709 standard. Huawei admits that the ‘236 patent claims priority from a Chinese patent application filed on June 15, 2007. Huawei further admits that on or about October, 2007, Huawei, ZTE, AMCC, and PMC-Sierra submitted a contribution to SG15 entitled “Considerations on bit rate agnostic mapping standardization,” (WD06) which listed as contacts Huub van Helvoort of Huawei, Yi Zhao of ZTE, Tracy Ma of AMCC, and Steve Gorshe of PMC-Sierra as contacts. Huawei further admits that on or about January 31, 2008, Huawei submitted proposals to SG15 entitled “Behavior of Cn transport for GMP” (Contribution 816) and “Consideration about NG OTN hierarchy” (Contribution 819), each of which listed as contacts Huub van Helvoort, Qiuyou Wu, and Limin Dong of Huawei. Huawei admits that at least the claimed “first series of bit positions” and “second series of bit positions” are found in these proposals. Huawei admits that Huawei representatives attended the following ITU-T meetings: SG15 Plenary Meeting, Geneva, Switzerland (June 4-15, 2007); Q11/15 Interim Meeting, Shenzhen, China (October 15-19, 2007); SG15 Plenary Meeting, Geneva, Switzerland (February 11-22, 2008); Q11/15 Interim Meeting, Sophia Antipolis, France (June 2-6, 2008); Q11/15 and Q9/15 Joint Meeting, Jeju Island, South Korea (September 22-26, 2008); SG15 Plenary Meeting, Geneva, Switzerland (December 1-12, 2008); Q11/15 Interim Meeting, Milpitas, California (March 16-20, 2009); Q11/15 Interim Meeting, Sophia Antipolis, France (May 25-29, 2009); SG15 Plenary Meeting, Geneva, Switzerland (September 28 – October 9, 2009), and that Qiuyou Wu and Huub van Helvoort attended certain of those meetings. Huawei admits that it contends that technology covered by the ‘236 patent was adopted into the G.709 standard in December 2009. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(b).

c. Huawei admits that it asserts that the '151 patent, which is entitled "method and apparatus for transmitting low-rate traffic signal in Optical Transport Network," is essential to Sections 6, 7, 12, 15, 17, and 19 of the G.709 standard. Huawei admits that the 151 patent claims priority to a Chinese patent application filed on August 11, 2004. Huawei admits that Huawei representative Maarten Vissers was the editor for Study Group 15 with responsibility for G.709 during the 2005-2008 study period and that he participated in the Q11/15 Interim Meeting in Sophia Antipolis on June 2-6, 2008. Huawei admits on August 11, 2008, Maarten Visser participated in email discussions with other members of SG15 concerning proposed changes to G.709 that included technical aspects referenced in one or more claims of the '151 patent. Huawei admits that it contends that technology covered by the '151 patent is included in the December 2009 and later versions of the G.709 standard. Huawei further incorporates by reference its responses to Verizon's Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(c).

d. Huawei admits that the '982 patent, which is entitled "method and apparatus for mapping and de-mapping in an Optical Transport Network" is essential to Section 19 of the G.709 standard. Huawei admits that the '982 patent claims priority from a Chinese patent application filed on March 9, 2009. Huawei admits that it contends that technology covered by the '982 patent was adopted into the G.709 standard in December 2009. Huawei further incorporates by reference its responses to Verizon's Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(d).

e. Huawei admits that the '433 patent is entitled "sending method, receiving and processing method and apparatus for adapting payload bandwidth for data transmission," is essential to Sections 11, 17 and Annex B of the G.709 standard. Huawei admits that the '433 patent claims priority from a Chinese patent application filed on June 21, 2007. Huawei admits that Trey

Malpass representing Huawei attended an IEEE 802.3 Higher Speed Study Group meeting in Seoul, Korea on September 11-13, 2007. Huawei admits that Trey Malpass attended an IEEE 802.3 Higher Speed Study Group in San Francisco, CA in July 16-19, 2007. Huawei admits that in January 2008, Huawei submitted a contribution to study group 15 entitled “Independently Transport of Four 512/513b Transcoded 10GbEs in standard ODU3” (Contribution 824), which listed Huub van Helvoort, Qiwen Zhong and Zhangzhen Jiang, the inventor of the ‘433 patent as contacts. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(e).

f. Huawei admits that the ‘253 patent is entitled “a method, apparatus and system for Ethernet Ring Protection (ERP)” is essential to Section 10 of the G.8032v2 standard. Huawei admits that the ‘253 patent claims priority from a Chinese patent application filed on January 23, 2007. Huawei admits that it submitted a contribution entitled “E-PURP: Ethernet – Passive link-Up Ring Protection” (WD09), with listed contacts Hao Long and Yang Yang, to SG15 during discussions regarding G.8032v2, and that WD09 is related to the technology of the ‘253 patent. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(f).

g. Huawei admits that the ‘485 patent is entitled “a method, apparatus and system for Ethernet Ring Protection (ERP)” is essential to Section 10 of the G.8032v2 standard. Huawei admits that the ‘485 patent claims priority from a Chinese patent application filed on January 23, 2007. Huawei admits that it submitted a contribution entitled “Proposals on optimizing flush operation in in Ethernet ring protection” (WD09), with listed contacts Hao Long and Yang Yang, to SG15 during discussions regarding G.8032v2, and that WD09 is related to the technology of the

‘485 patent. Huawei admits that it submitted a contribution entitled “ Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 601(g).

602. Denied.

603. Denied.

604. Huawei denies the allegations in paragraph 604 of the Counterclaims.

a. Huawei admits that the inventions and subject matter of the ‘505 patent are disclosed in the ‘505 patent. The characterizations of the ‘505 patent contained in paragraph 604(a) of the Counterclaims are incomplete and misleading, and therefore Huawei

denies these characterizations and any inferences from such characterizations.

Huawei states that the methods described in the ‘505 patent can be ascertained by

reading the full specification of the ‘505 patent. While certain proposals were

considered for the G.709 standard in addition to the technology of the ‘505 patent,

those proposals were rejected and/or rely upon the technology of the ‘505 patent.

Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘505 patent were or are available

for adoption into the G.709 standard by the SG15 study group. To the extent

paragraph 604(a) of the Counterclaims sets forth conclusions of law, no response is

required. Except to the extent admitted above, Huawei lacks sufficient knowledge and

information to form a belief about the truth of the remaining factual allegations of

paragraph 604(a) and, on that basis, denies them.

b. Huawei admits that the inventions and subject matter of the ‘236 patent are disclosed

in the ‘236 patent. The characterizations of the ‘236 patent contained in paragraph

604(b) of the Counterclaims are incomplete and misleading, and therefore Huawei

denies these characterizations and any inferences from such characterizations.

Huawei states that the methods described in the '236 patent can be ascertained by reading the full specification of the '236 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '236 patent, those proposals were rejected and/or rely upon the technology of the '236 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '236 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 604(b) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 604(b) and, on that basis, denies them.

c. Huawei admits that the inventions and subject matter of the '151 patent are disclosed in the '151 patent. The characterizations of the '151 patent contained in paragraph 604(c) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '151 patent can be ascertained by reading the full specification of the '151 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '151 patent, those proposals were rejected and/or rely upon the technology of the '151 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '151 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 604(c) of the Counterclaims sets forth conclusions of law, no response is

required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 604(c) and, on that basis, denies them.

- d. Huawei admits that the inventions and subject matter of the '982 patent are disclosed in the '982 patent. The characterizations of the '982 patent contained in paragraph 604(d) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '982 patent can be ascertained by reading the full specification of the '982 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '982 patent, those proposals were rejected and/or rely upon the technology of the '982 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '982 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 604(d) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 604(d) and, on that basis, denies them.
- e. Huawei admits that the inventions and subject matter of the '433 patent are disclosed in the '433 patent. The characterizations of the '433 patent contained in paragraph 604(e) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. Huawei states that the methods described in the '433 patent can be ascertained by reading the full specification of the '433 patent. While certain proposals were

considered for the G.709 standard in addition to the technology of the '433 patent, those proposals were rejected and/or rely upon the technology of the '433 patent. Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the '433 patent were or are available for adoption into the G.709 standard by the SG15 study group. Huawei admits that it filed Chinese patent application CN200710129552.2 to which U.S. Pat. No. 8,238,373 entitled “Method and device for mapping Ethernet code blocks to OTN for transmission,” claims priority, and that the abstract of the 373 patent includes the sentence “Thus, specific solutions for mapping 40 G Ethernet code blocks having an encoding rate lower than a minimum payload bandwidth of the OPU3 to the OTN for transmission is provided.” Huawei further admits that in January 2008, Huawei submitted ITU-T Contribution 824, which includes the sentence “There are many solutions to do the Multiplexing and Demultiplexing at the Mapper/Demapper of the ODU3.” Huawei admits that in January 2008, Huawei submitted ITU-T Contribution 813 entitled “2048/2049B transcoded 10GbE in ODU2,” which includes the sentence “many contributions were submitted for the ITU-T Q11/15 meeting in Shenzhen showing a possible way to map 4x10G Base-R into standard ODU3 using 512B/513B transcoding,” and the sentence “The 512/513b Transcoding has been extensively discussed for enabling transport of 40GE and 4x10GE in an ODU3.” Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the '433 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 604(e) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a

belief about the truth of the remaining factual allegations of paragraph 604(e) and, on that basis, denies them.

- f. Huawei admits that the inventions and subject matter of the '2533 patent are disclosed in the '253 patent. The characterizations of the '253 patent contained in paragraph 604(f) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. .

Huawei states that the methods described in the '253 patent can be ascertained by reading the full specification of the '253 patent. While certain proposals were considered for the G.8032 standard in addition to the technology of the '253 patent, those proposals were rejected and/or rely upon the technology of the '253 patent.

Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '253 patent were or are available for adoption into the G.8032 standard by the SG15 study group. To the extent paragraph 604(f) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 604(f) and, on that basis, denies them.

- g. Huawei admits that the inventions and subject matter of the '485 patent are disclosed in the '485 patent. The characterizations of the '485 patent contained in paragraph 604(g) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. .

Huawei states that the methods described in the '485 patent can be ascertained by reading the full specification of the '485 patent. While certain proposals were considered for the G.8032 standard in addition to the technology of the '485 patent,

those proposals were rejected and/or rely upon the technology of the '485 patent.

Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘485 patent were or are available for adoption into the G.8032 standard by the SG15 study group. To the extent paragraph 604(g) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 604(g) and, on that basis, denies them.

605. Denied.

606. Denied.

607. Denied.

608. Denied.

609. Denied.

610. Paragraph 610 of the Counterclaims set forth conclusions of law for which no response is required.

611. Huawei admits that it filed this action for patent infringement against Verizon and seeks damages. Huawei denies the remaining allegations of paragraph 611.

612. Huawei admits that it has not included the patents-in-suit in any other lawsuits. Huawei denies the remaining allegations in paragraph 612 of the Counterclaims. In particular, Huawei denies that the ITU-T RAND commitment precludes a patent owner from filing an infringement lawsuit against a subset of potential infringers. Huawei filed the present lawsuit because its year-long negotiations with Verizon have demonstrated that Verizon is unwilling to pay a reasonable royalty for its use of Huawei’s patented technology.

613. To the extent paragraph 613 of the Counterclaims sets forth conclusions of law,

no response is required. To the extent a response is required, Huawei denies the allegations of paragraph 613.

614. To the extent paragraph 614 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 614 and, on that basis, denies them.

615. Huawei admits that during its negotiations with Verizon, Verizon has asked for a variety of types of information including questions regarding Huawei's impacted revenue assumptions, information about other licensees, including copies of license agreements. Huawei denies that these requests were limited to basic information necessary for Verizon to determine whether any rate that Huawei quotes is in fact fair, reasonable, and non-discriminatory and in fact went far beyond what was necessary for that purpose. Huawei further states that it has provided the requested information to the best of its ability, subject to its confidentiality obligations to other licensees. Huawei otherwise denies the allegations in paragraph 615.

616. Denied.

617. Denied.

618. Denied.

619. Huawei denies that it made omissions or misstatements or engaged in deceptive conduct as alleged in paragraph 619 of the Counterclaims. Huawei further denies that it was Huawei's "goal" to induce Verizon's alleged reliance. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 619 of the Counterclaims and, on that basis, denies them.

620. Denied.

621. Huawei denies that it has demanded "hundreds of million in baseless royalties" or that it has concealed patents or patent applications from ITU-T. Huawei lacks sufficient

knowledge and information to form a belief about the truth of the remaining allegations in paragraph 621 of the Counterclaims and, on that basis, denies them.

622. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 622 of the Counterclaims and, on that basis, denies them.

623. Denied.

624. To the extent paragraph 624 of the Counterclaims sets forth conclusions of law, no response is required. Huawei denies that it made commitments and misrepresentations that were false, or that it made intentional nondisclosures and misrepresentations. For other allegations in this paragraph not addressed above, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 624 and, on that basis, denies them.

625. Huawei denies that it engaged in misconduct as described in paragraph 625 of the Counterclaims. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 625 of the Counterclaims and, on that basis, denies them.

626. To the extent paragraph 626 of the Counterclaims sets forth conclusions of law, no response is required. Huawei admits that it filed this suit in Texas and denies that it has engaged in misconduct. Huawei admits that it alleges that Verizon has committed acts of infringement in Texas and that Verizon is defending this lawsuit in Texas. Huawei denies that its claims in this case are baseless. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 626 and, on that basis and except to the extent admitted above, denies them.

627. Denied.

COUNT SIX
(Alleged Fraud Under Texas Law)

628. Huawei incorporates its responses to paragraphs 473-627 as if fully set forth herein.

629. Admitted.

630. Huawei lacks sufficient knowledge and information to form a belief about the truth of the factual allegations of paragraph 630 and, on that basis, denies them.

631. Huawei admits that its representatives made contributions to the ITU-T G.709 and G.8032 Recommendations and that Huawei has filed patent applications that disclose aspects of certain of those contributions. Huawei denies any remaining allegations of paragraph 631.

632. Denied. Huawei did not file patent applications "simultaneously with Study Group contributions." In accordance with ITU-T policies and practices, Huawei specifically disclosed to ITU-T that it holds granted and/or pending applications for patents, the use of which would be required to implement G.709 and G.8032. To the extent the allegations of paragraph 632 imply that Huawei was obligated to disclose specific patents or patent applications to ITU-T, Huawei denies that implication. Huawei states that it fully complied with ITU-T policies concerning disclosure of patents and patent applications in connection with its participation in ITU-T study groups. Those policies do not require the identification of specific patent applications or patent numbers if a participant discloses that it holds granted and/or pending applications for patents, the use of which would be required to implement particular Recommendations and offers to grant - on the basis of reciprocity for the relevant ITU-T Recommendation(s) - a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the relevant ITU-T Recommendation(s).. Huawei has complied with that requirement, and thus was not obligated to

disclose any specific patents or applications to ITU-T. Accordingly, and consistent with ITU-T policy and practice, Huawei has not identified specific patents or applications to ITU-T. Huawei's published patents and applications are, however, readily searchable by potential implementers of ITU-T standards.

633. Denied.

634. Huawei admits that paragraph 634 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 634 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

635. Huawei admits that paragraph 635 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 635 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

636. Huawei admits that paragraph 636 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 636 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

637. Huawei admits that paragraph 637 accurately quotes language from the November 2, 2005 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 637 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

638. Huawei admits that the Common Patent Policy for ITU-T/ITU-R/ISO/IEC and the March 15, 2007 Guidelines for Implementation of the Common Patent Policy describe the ITU-T's disclosure policy and requirements as of the dates of their promulgation, and otherwise denies the

allegations of paragraph 638.

639. Huawei admits that paragraph 639 accurately quotes language from the March 15, 2007 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 639 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

640. Huawei admits that paragraph 640 accurately quotes language from the March 15, 2007 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 640 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

641. Huawei admits that paragraph 641 accurately quotes language from the November 2, 2005 and March 15, 2007 Guidelines for Implementation of ITU-T Patent Policy. To the extent the allegations of paragraph 641 are intended to imply that Huawei had an obligation to disclose specific patents or patent applications to ITU-T, Huawei denies any such implication.

642. Huawei lacks sufficient knowledge and information to form a belief about the truth of the allegations in paragraph 642 and, on that basis, denies them.

643. Huawei lacks sufficient knowledge and information to form a belief about the truth of the allegations in paragraph 643 and, on that basis, denies them.

644. Denied.

645. Denied. Huawei did not file patent applications "simultaneously with Study Group contributions." In accordance with ITU-T policies and practices, Huawei specifically disclosed to ITU-T that it holds granted and/or pending applications for patents, the use of which would be required to implement G.709 and G.8032. To the extent the allegations of paragraph 645 imply that Huawei was obligated to disclose specific patents or patent applications to ITU-T, Huawei denies that implication. Huawei states that it fully complied with ITU-T policies

concerning disclosure of patents and patent applications in connection with its participation in ITU-T study groups. Those policies do not require the identification of specific patent applications or patent numbers if a participant discloses that it holds granted and/or pending applications for patents, the use of which would be required to implement particular Recommendations and offers to grant - on the basis of reciprocity for the relevant ITU-T Recommendation(s) - a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the relevant ITU-T Recommendation(s).. Huawei has complied with that requirement, and thus was not obligated to disclose any specific patents or applications to ITU-T. Accordingly, and consistent with ITU-T policy and practice, Huawei has not identified specific patents or applications to ITU-T. Huawei's published patents and applications are, however, readily searchable by potential implementers of ITU-T standards.

646. Denied.

647. Denied.

648. Huawei admits that Huawei personnel frequently participated in ITU-T Working Groups and made contributions that were adopted into certain standards. Huawei denies all of the remaining allegations in paragraph 648.

a. Huawei admits that it asserts that the '505 Patent, which is entitled "a method and apparatus for transporting client signals in optical transport network," is essential to Sections 7, 11, 12, 13, 19, 20 and Annex D of the G.709 standard. Huawei admits that the '505 patent claims priority to a Chinese patent application filed on April 17, 2007. Huawei admits that Limin Dong and Qiuyou Wu are the named inventors of the '505 patent. Huawei admits that on or about May, 2007, Huawei made contributions to SG15 entitled "Proposals on a flexible multiplexing/mapping scheme," (Contribution

458) and “Considerations on the evolution of OTN,” (Contribution 457) which listed Angel Molina, Yonggang Cheng, Limin Dong and Qiuyou Wu of Huawei as contacts. Huawei further admits that “Proposals on a flexible multiplexing/mapping scheme” discloses the subject matter of “wherein the OPUk frame includes an overhead containing a tributary slot MultiFrame Indicator (MFI-TS) byte” and “wherein the OPUk frame includes an OPUk payload area that includes a total of 4 rows and 3808 columns.” Huawei further admits that on or about October, 2007, Huawei, ZTE, AMCC, and PMC-Sierra submitted a contribution to SG15 entitled “Considerations on bit rate agnostic mapping standardization,” (WD06) which listed as contacts Huub van Helvoort of Huawei, Yi Zhao of ZTE, Tracy Ma of AMCC, and Steve Gorshe of PMC-Sierra as contacts. Huawei admits that it contends that limitations of claims of the ‘505 patent read on portions of the G.709 standard that were adopted in December 2009. Huawei admits that Huawei representatives attended the following ITU-T meetings: SG15 Plenary Meeting, Geneva, Switzerland (June 4-15, 2007); Q11/15 Interim Meeting, Shenzhen, China (October 15-19, 2007); SG15 Plenary Meeting, Geneva, Switzerland (February 11-22, 2008); Q11/15 Interim Meeting, Sophia Antipolis, France (June 2-6, 2008); Q11/15 and Q9/15 Joint Meeting, Jeju Island, South Korea (September 22-26, 2008); SG15 Plenary Meeting, Geneva, Switzerland (December 1-12, 2008); Q11/15 Interim Meeting, Milpitas, California (March 16-20, 2009); Q11/15 Interim Meeting, Sophia Antipolis, France (May 25-29, 2009); SG15 Plenary Meeting, Geneva, Switzerland (September 28 – October 9, 2009), and that Qiuyou Wu and Huub van Helvoort attended certain of those meetings. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the

remaining allegations of paragraph 648(a).

- b. Huawei admits that it asserts the '236 patent, which is entitled "method and apparatus for transporting client signal in optical transport network," is essential to Sections 7, 19, 20 and Annex D of the G.709 standard. Huawei admits that the '236 patent claims priority from a Chinese patent application filed on June 15, 2007. Huawei further admits that on or about October, 2007, Huawei, ZTE, AMCC, and PMC-Sierra submitted a contribution to SG15 entitled "Considerations on bit rate agnostic mapping standardization," (WD06) which listed as contacts Huub van Helvoort of Huawei, Yi Zhao of ZTE, Tracy Ma of AMCC, and Steve Gorshe of PMC-Sierra as contacts. Huawei further admits that on or about January 31, 2008, Huawei submitted proposals to SG15 entitled "Behavior of Cn transport for GMP" (Contribution 816) and "Consideration about NG OTN hierarchy" (Contribution 819), each of which listed as contacts Huub van Helvoort, Qiuyou Wu, and Limin Dong of Huawei. Huawei admits that at least the claimed "first series of bit positions" and "second series of bit positions" are found in these proposals. Huawei admits that Huawei representatives attended the following ITU-T meetings: SG15 Plenary Meeting, Geneva, Switzerland (June 4-15, 2007); Q11/15 Interim Meeting, Shenzhen, China (October 15-19, 2007); SG15 Plenary Meeting, Geneva, Switzerland (February 11-22, 2008); Q11/15 Interim Meeting, Sophia Antipolis, France (June 2-6, 2008); Q11/15 and Q9/15 Joint Meeting, Jeju Island, South Korea (September 22-26, 2008); SG15 Plenary Meeting, Geneva, Switzerland (December 1-12, 2008); Q11/15 Interim Meeting, Milpitas, California (March 16-20, 2009); Q11/15 Interim Meeting, Sophia Antipolis, France (May 25-29, 2009); SG15 Plenary Meeting, Geneva, Switzerland (September 28 – October 9, 2009), and that Qiuyou Wu and Huub van Helvoort attended certain of those meetings.

Huawei admits that it contends that technology covered by the '236 patent was adopted into the G.709 standard in December 2009. Huawei further incorporates by reference its responses to Verizon's Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 648(b).

- c. Huawei admits that it asserts that the '151 patent, which is entitled "method and apparatus for transmitting low-rate traffic signal in Optical Transport Network," is essential to Sections 6, 7, 12, 15, 17, and 19 of the G.709 standard. Huawei admits that the 151 patent claims priority to a Chinese patent application filed on August 11, 2004. Huawei admits that Huawei representative Maarten Vissers was the editor for Study Group 15 with responsibility for G.709 during the 2005-2008 study period and that he participated in the Q11/15 Interim Meeting in Sophia Antipolis on June 2-6, 2008. Huawei admits on August 11, 2008, Maarten Visser participated in email discussions with other members of SG15 concerning proposed changes to G.709 that included technical aspects referenced in one or more claims of the '151 patent. Huawei admits that it contends that technology covered by the '151 patent is included in the December 2009 and later versions of the G.709 standard. Huawei further incorporates by reference its responses to Verizon's Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 648(c).
- d. Huawei admits that the '982 patent, which is entitled "method and apparatus for mapping and de-mapping in an Optical Transport Network" is essential to Section 19 of the G.709 standard. Huawei admits that the '982 patent claims priority from a Chinese patent application filed on March 9, 2009. Huawei admits that it contends that

technology covered by the ‘982 patent was adopted into the G.709 standard in December 2009. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 648(d).

e. Huawei admits that the ‘433 patent is entitled “sending method, receiving and processing method and apparatus for adapting payload bandwidth for data transmission,” is essential to Sections 11, 17 and Annex B of the G.709 standard. Huawei admits that the ‘433 patent claims priority from a Chinese patent application filed on June 21, 2007. Huawei admits that Trey Malpass representing Huawei attended an IEEE 802.3 Higher Speed Study Group meeting in Seoul, Korea on September 11-13, 2007. Huawei admits that Trey Malpass attended an IEEE 802.3 Higher Speed Study Group in San Francisco, CA in July 16-19, 2007. Huawei admits that in January 2008, Huawei submitted a contribution to study group 15 entitled “Independently Transport of Four 512/513b Transcoded 10GbEs in standard ODU3” (Contribution 824), which listed Huub van Helvoort, Qiwen Zhong and Zhangzhen Jiang, the inventor of the ‘433 patent as contacts. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 648(e).

f. Huawei admits that the ‘253 patent is entitled “a method, apparatus and system for Ethernet Ring Protection (ERP)” is essential to Section 10 of the G.8032v2 standard. Huawei admits that the ‘253 patent claims priority from a Chinese patent application filed on January 23, 2007. Huawei admits that it submitted a contribution entitled “E-PURP: Ethernet – Passive link-Up Ring Protection” (WD09), with listed contacts Hao

Long and Yang Yang, to SG15 during discussions regarding G.8032v2, and that WD09 is related to the technology of the ‘253 patent. Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 648(f).

g. Huawei admits that the ‘485 patent is entitled “a method, apparatus and system for Ethernet Ring Protection (ERP)” is essential to Section 10 of the G.8032v2 standard. Huawei admits that the ‘485 patent claims priority from a Chinese patent application filed on January 23, 2007. Huawei admits that it submitted a contribution entitled “Proposals on optimizing flush operation in in Ethernet ring protection” (WD09), with listed contacts Hao Long and Yang Yang, to SG15 during discussions regarding G.8032v2, and that WD09 is related to the technology of the ‘485 patent. Huawei admits that it submitted a contribution entitled “ Huawei further incorporates by reference its responses to Verizon’s Interrogatory 6 served by Huawei on November 18, 2020. Except to the extent admitted above, Huawei denies the remaining allegations of paragraph 648(g).

649. Denied.

650. Denied.

651. Huawei denies the allegations in paragraph 651 of the Counterclaims.

a. Huawei admits that the inventions and subject matter of the ‘505 patent are disclosed in the ‘505 patent. The characterizations of the ‘505 patent contained in paragraph 651(a) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the ‘505 patent can be ascertained by

reading the full specification of the '505 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '505 patent, those proposals were rejected and/or rely upon the technology of the '505 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '505 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 651(a) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 651(a) and, on that basis, denies them.

- b. Huawei admits that the inventions and subject matter of the '236 patent are disclosed in the '236 patent. The characterizations of the '236 patent contained in paragraph 651(b) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '236 patent can be ascertained by reading the full specification of the '236 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '236 patent, those proposals were rejected and/or rely upon the technology of the '236 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '236 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 651(b) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of

paragraph 651(b) and, on that basis, denies them.

- c. Huawei admits that the inventions and subject matter of the '151 patent are disclosed in the '151 patent. The characterizations of the '151 patent contained in paragraph 651(c) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '151 patent can be ascertained by reading the full specification of the '151 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '151 patent, those proposals were rejected and/or rely upon the technology of the '151 patent. Accordingly, Huawei denies that suitable non-infringing (and thus "available" or "viable") alternatives to the inventions claimed in the '151 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 651(c) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 651(c) and, on that basis, denies them.
- d. Huawei admits that the inventions and subject matter of the '982 patent are disclosed in the '982 patent. The characterizations of the '982 patent contained in paragraph 651(d) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any inferences from such characterizations. Huawei states that the methods described in the '982 patent can be ascertained by reading the full specification of the '982 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the '982 patent, those proposals were rejected and/or rely upon the technology of the '982 patent.

Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘982 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 651(d) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 651(d) and, on that basis, denies them.

- e. Huawei admits that the inventions and subject matter of the ‘433 patent are disclosed in the ‘433 patent. The characterizations of the ‘433 patent contained in paragraph 651(e) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations.

Huawei states that the methods described in the ‘433 patent can be ascertained by reading the full specification of the ‘433 patent. While certain proposals were considered for the G.709 standard in addition to the technology of the ‘433 patent, those proposals were rejected and/or rely upon the technology of the ‘433 patent.

Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘433 patent were or are available for adoption into the G.709 standard by the SG15 study group. Huawei admits that it filed Chinese patent application CN200710129552.2 to which U.S. Pat. No. 8,238,373 entitled “Method and device for mapping Ethernet code blocks to OTN for transmission,” claims priority, and that the abstract of the 373 patent includes the sentence “Thus, specific solutions for mapping 40 G Ethernet code blocks having an encoding rate lower than a minimum payload bandwidth of the OPU3 to the OTN for transmission is provided.” Huawei further admits that in January 2008, Huawei

submitted ITU-T Contribution 824, which includes the sentence “There are many solutions to do the Multiplexing and Demultiplexing at the Mapper/Demapper of the ODU3.” Huawei admits that in January 2008, Huawei submitted ITU-T Contribution 813 entitled “2048/2049B transcoded 10GbE in ODU2,” which includes the sentence “many contributions were submitted for the ITU-T Q11/15 meeting in Shenzhen showing a possible way to map 4x10G Base-R into standard ODU3 using 512B/513B transcoding,” and the sentence “The 512/513b Transcoding has been extensively discussed for enabling transport of 40GE and 4x10GE in an ODU3.” Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘433 patent were or are available for adoption into the G.709 standard by the SG15 study group. To the extent paragraph 651(e) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 651(e) and, on that basis, denies them.

- f. Huawei admits that the inventions and subject matter of the ‘253 patent are disclosed in the ‘253 patent. The characterizations of the ‘253 patent contained in paragraph 651(f) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. .

Huawei states that the methods described in the ‘253 patent can be ascertained by reading the full specification of the ‘253 patent. While certain proposals were considered for the G.8032 standard in addition to the technology of the ‘253 patent, those proposals were rejected and/or rely upon the technology of the ‘253 patent. Accordingly, Huawei denies that suitable non-infringing (and thus “available” or

“viable”) alternatives to the inventions claimed in the ‘253 patent were or are available for adoption into the G.8032 standard by the SG15 study group. To the extent paragraph 651(f) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 651(f) and, on that basis, denies them.

g. Huawei admits that the inventions and subject matter of the ‘485 patent are disclosed in the ‘485 patent. The characterizations of the ‘485 patent contained in paragraph 651(g) of the Counterclaims are incomplete and misleading, and therefore Huawei denies these characterizations and any influences from such characterizations. .
Huawei states that the methods described in the ‘485 patent can be ascertained by reading the full specification of the ‘485 patent. While certain proposals were considered for the G.8032 standard in addition to the technology of the ‘485 patent, those proposals were rejected and/or rely upon the technology of the ‘485 patent. Accordingly, Huawei denies that suitable non-infringing (and thus “available” or “viable”) alternatives to the inventions claimed in the ‘485 patent were or are available for adoption into the G.8032 standard by the SG15 study group. .To the extent paragraph 651(g) of the Counterclaims sets forth conclusions of law, no response is required. Except to the extent admitted above, Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 651(g) and, on that basis, denies them.

652. Denied.

653. Denied.

654. Denied.

655. Denied.

656. Denied.

657. Paragraph 657 of the Counterclaims set forth conclusions of law for which no response is required.

658. Huawei admits that it filed this action for patent infringement against Verizon and seeks damages. Huawei denies the remaining allegations of paragraph 658.

659. Huawei admits that it has not included the patents-in-suit in any other lawsuits. Huawei denies the remaining allegations in paragraph 659 of the Counterclaims. In particular, Huawei denies that the ITU-T RAND commitment precludes a patent owner from filing an infringement lawsuit against a subset of potential infringers. Huawei filed the present lawsuit because its year-long negotiations with Verizon have demonstrated that Verizon is unwilling to pay a reasonable royalty for its use of Huawei's patented technology.

660. To the extent paragraph 660 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 614 and, on that basis, denies them.

661. To the extent paragraph 661 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 661 and, on that basis, denies them.

662. Huawei admits that during its negotiations with Verizon, Verizon has asked for a variety of types of information including questions regarding Huawei's impacted revenue assumptions, information about other licensees, including copies of license agreements. Huawei denies that these requests were limited to basic information necessary for Verizon to determine whether any rate that Huawei quotes is in fact fair, reasonable, and non-discriminatory and in fact went far beyond what was necessary for that purpose. Huawei further states that it has provided the

requested information to the best of its ability, subject to its confidentiality obligations to other licensees. Huawei otherwise denies the allegations in paragraph 662.

663. Denied.

664. Denied.

665. Denied.

666. Huawei denies that it made omissions or misstatements or engaged in deceptive conduct as alleged in paragraph 666 of the Counterclaims. Huawei further denies that it was Huawei’s “goal” to induce Verizon’s alleged reliance. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 619 of the Counterclaims and, on that basis, denies them.

667. Denied.

668. Huawei denies that it has demanded “hundreds of million in baseless royalties” or that it has concealed patents or patent applications from ITU-T. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 668 of the Counterclaims and, on that basis, denies them.

669. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 669 of the Counterclaims and, on that basis, denies them.

670. Denied.

671. To the extent paragraph 671 of the Counterclaims sets forth conclusions of law, no response is required. To the extent a response is required, Huawei lacks sufficient knowledge and information to form a belief about the truth of paragraph 671 and, on that basis, denies them.

672. Huawei denies that it engaged in misconduct as described in paragraph 672 of the Counterclaims. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining allegations in paragraph 625 of the Counterclaims and, on that basis, denies them.

673. To the extent paragraph 673 of the Counterclaims sets forth conclusions of law, no response is required. Huawei admits that it filed this suit in Texas and denies that it has engaged in misconduct. Huawei admits that it alleges that Verizon has committed acts of infringement in Texas and that Verizon is defending this lawsuit in Texas. Huawei denies that its claims in this case are baseless. Huawei lacks sufficient knowledge and information to form a belief about the truth of the remaining factual allegations of paragraph 626 and, on that basis and except to the extent admitted above, denies them.

674. Denied.

VERIZON'S PRAYER FOR RELIEF

Huawei denies that Verizon is entitled to any relief, and specifically denies all of the allegations and prayers for relief contained in paragraphs a-i of Verizon's Prayer for Relief.

AFFIRMATIVE AND OTHER DEFENSES

1. Subject to the responses above, Huawei alleges and asserts the following defenses in response to the allegations, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated herein. In addition to the affirmative defenses described below, subject to its responses above, Huawei specifically reserves all rights to allege additional affirmative defenses that become known through the course of discovery or further investigation in this action.

FIRST AFFIRMATIVE DEFENSE (Failure to State a Claim)

2. Verizon's Counterclaims fail to state a claim upon which relief can be granted.

SECOND AFFIRMATIVE DEFENSE (Non-Infringement)

3. Huawei does not infringe and has not directly infringed (either literally, under the

doctrine of equivalents, or under the reverse doctrine of equivalents), induced infringement of, or contributed to the infringement of any valid and enforceable claim of the '111 and '288 Patents.

**THIRD AFFIRMATIVE DEFENSE
(Invalidity and Ineligibility)**

4. The claims of the '111 and '288 Patents are invalid under 35 U.S.C. § 101 because the claims are directed to abstract ideas or other non-statutory subject matter.

5. The claims of the '111 and '288 Patents are invalid under 35 U.S.C. § 102 because the claims lack novelty, and are taught and suggested by the prior art.

6. The claims of the '111 and '288 Patents are invalid under 35 U.S.C. § 103 because the claims are obvious in view of the prior art.

7. The claims of the '111 and '288 Patents are invalid for failure to satisfy the conditions set forth in 35 U.S.C. § 112, including failure of written description, lack of enablement, and claim indefiniteness.

**FOURTH AFFIRMATIVE DEFENSE
(Prosecution History Estoppel and/or Disclaimer)**

8. By reason of statements, representations, concessions, admissions, arguments, and/or amendments, whether explicit or implicit, made by or on behalf of the applicant during the prosecution of the patent applications that led to the issuance of the '111 and '288 Patents, Verizon's claims of patent infringement are barred, in whole or in part, by the doctrine of prosecution history estoppel. To the extent Verizon's alleged claim for infringement of any of the asserted patents in the Complaint is based on the doctrine of equivalents, Verizon is barred under the doctrine of prosecution history estoppel and/or other limits to the doctrine of equivalents, and Verizon is estopped from claiming that the asserted patents cover any accused method, system, and/or product.

**FIFTH DEFENSE
(Damages and Cost Limitation, Failure to Mark)**

9. On information and belief, Verizon's claims for relief are limited or barred, in whole or in part, by 35 U.S.C. §§ 286, 287, and/or 288.

**SIXTH DEFENSE
(Actions of Others)**

10. On information and belief, Verizon's claims are barred, in whole or in part, because Huawei is not liable for the acts of others over whom it has no control.

**SEVENTH DEFENSE
(License, Implied License, and/or Exhaustion)**

11. To the extent Verizon has granted any of Huawei's customers a license or covenant not to sue or assert under any of the asserted patents in the Complaint, or to the extent any of Huawei's customers otherwise have a license or covenant not to sue or assert under any of the asserted patents in the Counterclaims, the relief sought by Verizon in relation to such patent is barred by license and/or under the doctrine of patent exhaustion.

**EIGHTH DEFENSE
(Rejection, Repudiation, and/or Forfeiture of Any Rights Associated
With Huawei's RAND Commitment)**

12. Huawei, as the owner of patents essential to ITU-T standards, has voluntarily declared that it is prepared to grant licenses to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the G.709 Standard subject to reciprocity, meaning that Huawei is only required to license any prospective licensee if such prospective licensee will commit to license its patents for implementation of the same standards free of charge or under reasonable terms and conditions. (Huawei's "RAND Commitment")

13. Huawei has fully complied with its RAND Commitment by, among other things, attempting to negotiate in good faith with Verizon and offering a license to its essential patents on RAND terms.

14. Verizon has repudiated, rejected, and/or forfeited any rights associated with Huawei's RAND Commitment by failing to undertake good-faith negotiations; rejecting Huawei's RAND offer by bringing its Counterclaims asserting that Huawei breached RAND instead of providing an allegedly RAND counteroffer; and/or bringing its Counterclaims for infringement of allegedly essential patents instead of identifying those patents for a reciprocal license.

NINTH DEFENSE
(Unclean Hands, Waiver, Implied Waiver, Acquiescence, and/or Equitable Estoppel)

15. On information and belief, Verizon participated in the standardization process for G.709 and submitted at least one contribution for G.709 at least as early as 2009.

16. On information and belief, Verizon knew or should have known of the ITU-T's common patent policy, which states: "the patent holder has to provide a written statement to be filed at ITU-TSB, ITU-BR or the offices of the CEOs of ISO or IEC, respectively, using the appropriate ITU-T Licensing Declaration Form. See, e.g.:

PATENT STATEMENT AND LICENSING DECLARATION FORM FOR ITU-T/ITU-R
RECOMMENDATION | ISO/IEC DELIVERABLE



**Patent Statement and Licensing Declaration
for ITU-T/ITU-R Recommendation | ISO/IEC Deliverable**

This declaration does not represent an actual grant of a license

Please return to the relevant organization(s) as instructed below per document type:

Director	Director	Secretary-General	General Secretary
Telecommunication	Radiocommunication Bureau	International Organization for	International Electrotechnical
Standardization Bureau	International Telecommunication	Standardization	Commission
International Telecommunication	Union	1 chemin de la Voie-Creuse	3 rue de Varembé
Union	Place des Nations	CH-1211 Geneva 20	CH-1211 Geneva 20
Place des Nations	CH-1211 Geneva 20,	Switzerland	Switzerland
CH-1211 Geneva 20,	Switzerland	Fax: +41 22 733 3430	Fax: +41 22 919 0300
Switzerland	Fax: +41 22 730 5785	Email:	Email:
Fax: +41 22 730 5853	Email: brmail@itu.int	patent_statements@iso.org	inmail@iec.ch
Email: tsbdir@itu.int			

Patent Holder:

Legal Name _____

Contact for license application:

Name & _____

Department _____

Address _____

Tel. _____

Fax _____

E-mail _____

URL (optional) _____

Document type:

ITU-T Rec. (*) ITU-R Rec. (*) ISO Deliverable (*) IEC Deliverable (*)
(please return the form to the relevant Organization)

Common text or twin text (ITU-T Rec. | ISO/IEC Deliverable (*)) (for common text or twin text,
please return the form to each of the three Organizations: ITU-T, ISO, IEC)

ISO/IEC Deliverable (*) (for ISO/IEC Deliverables, please return the form to both ISO and IEC)
(*)Number _____

(*)Title _____

Licensing declaration:

The Patent Holder believes that it holds granted and/or pending applications for patents, the use of which would be required to implement the above document and hereby declares, in accordance with the Common Patent Policy for ITU-T/ITU-R/ISO/IEC, that (check one box only):

1. The Patent Holder is prepared to grant a free of charge license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and under other reasonable terms and conditions to make, use, and sell implementations of the above document.

Negotiations are left to the parties concerned and are performed outside the ITU-T, ITU-R, ISO or IEC.

Also mark here if the Patent Holder's willingness to license is conditioned on reciprocity for the above document.

Also mark here if the Patent Holder reserves the right to license on reasonable terms and conditions (but not free of charge) to applicants who are only willing to license their patent claims, whose use would be required to implement the above document, on reasonable terms and conditions (but not free of charge).

2. The Patent Holder is prepared to grant a license to an unrestricted number of applicants on a worldwide, non-discriminatory basis and on reasonable terms and conditions to make, use and sell implementations of the above document.

Negotiations are left to the parties concerned and are performed outside the ITU-T, ITU-R, ISO, or IEC.

Also mark here if the Patent Holder's willingness to license is conditioned on reciprocity for the above document.

3. The Patent Holder is unwilling to grant licenses in accordance with provisions of either 1 or 2 above.

In this case, the following information must be provided to ITU, and is strongly desired by ISO and IEC, as part of this declaration:

- granted patent number or patent application number (if pending);
- an indication of which portions of the above document are affected;
- a description of the patent claims covering the above document.

Free of charge: The words "free of charge" do not mean that the Patent Holder is waiving all of its rights with respect to the essential patent. Rather, "free of charge" refers to the issue of monetary compensation; *i.e.*, that the Patent Holder will not seek any monetary compensation as part of the licensing arrangement (whether such compensation is called a royalty, a one-time licensing fee, etc.). However, while the Patent Holder in this situation is committing to not charging any monetary amount, the Patent Holder is still entitled to require that the implementer of the above document sign a license agreement that contains other reasonable terms and conditions such as those relating to governing law, field of use, reciprocity, warranties, etc.

Reciprocity: As used herein, the word "reciprocity" means that the Patent Holder shall only be required to license any prospective licensee if such prospective licensee will commit to license its essential patent(s) or essential patent claim(s) for implementation of the same above document free of charge or under reasonable terms and conditions.

Signature:

Patent Holder

Name of authorized person

Title of authorized person

Signature

Place, Date

FORM: 1 March 2007

Patent Information (desired but not required for options 1 and 2; required in ITU for option 3 (NOTE))				
No.	Status [granted/ pending]	Country	Granted Patent Number or Application Number (if pending)	Title
1				
2				
3				

NOTE: For option 3, the additional minimum information that shall also be provided is listed in the option 3 box above.

17. On information and belief, Verizon has not disclosed to the ITU-T its assertion that the '111 and '288 patents are standard essential, nor has Verizon submitted an ITU-T Licensing Declaration Form. This is despite the fact that Verizon is currently asserting that those patents are essential to portions of the G.709 standard that were added after Verizon's involvement with G.709.

18. In this case, Verizon has alleged that Huawei's asserted patents are unenforceable because Huawei made a general commitment to license its patents on RAND terms without specifically identifying patent numbers.² In other words, Verizon alleges that an essential patent-holder's patents should be rendered unenforceable if the patent-holder made a general RAND commitment without also identifying specific patent numbers. At the same time, Verizon is asserting infringement of allegedly essential patents despite the fact that Verizon failed to make a general RAND commitment or identify its specific patent numbers.

19. Accordingly, Verizon's requests for relief should be denied due to Verizon's unclean hands, Waiver, Implied Waiver, Acquiescence, and/or Equitable Estoppel.

**TENTH DEFENSE
(Statute of Limitations)**

20. Verizon's Texas state law counterclaims are barred by the applicable statute of limitations.

**ELEVENTH DEFENSE
(Laches)**

21. Verizon's Texas state law counterclaims are barred by the doctrine of laches.

**TWELFTH DEFENSE
(Failure to Mitigate Damages)**

22. Verizon failed to mitigate damages with respect to its breach of contract claim.

**THIRTEENTH DEFENSE
(Statute of Frauds)**

23. Verizon's breach of contract claim is barred by the statute of frauds.

**FOURTEENTH AFFIRMATIVE DEFENSE
(*Noerr-Pennington* Doctrine)**

24. The alleged conduct in Verizon's counterclaims is protected, in whole or in part, by the *Noerr-Pennington* doctrine.

² Contrary to Verizon's assertions, Huawei's practice is consistent with ITU policy and the ITU-T Licensing Declaration Form.

RESERVATION OF DEFENSES

1. Discovery in this action has not yet commenced and Huawei continues to investigate the allegations set forth in the Counterclaims. Huawei hereby provides explicit notice to Verizon that it intends to rely upon such other defenses as may become available by law or in equity, or pursuant to statute, as discovery proceedings in this action, and hereby reserves the right to assert such additional defenses.

COUNTERCLAIMS

In accordance with Rule 13 of the Federal Rules of Civil Procedure, Huawei hereby alleges and asserts the following Counterclaims against Verizon:

THE PARTIES

1. Huawei Technologies Co. Ltd. is a Chinese corporation with its principal place of business at Bantian, Longgang District, Shenzhen, People's Republic of China.

2. Huawei Technologies USA, Inc. is a Texas corporation with its principal place of business at 5700 Tennyson Parkway Suite 600, Plano, TX 75024.

3. Defendant Verizon Business Network Services, Inc. is a Delaware corporation with its principal place of business at 22001 Loudoun County Parkway, Ashburn, Virginia 20147. Verizon Business Network Services, Inc. has designated CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201 as its agent for service of process.

4. Defendant Cellco Partnership d/b/a Verizon Wireless, Inc. is a General Partnership with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920. Cellco Partnership d/b/a Verizon Wireless, Inc. has designated The Corporation Trust Company, Corporation Trust Center, 1209 Orange Street, Wilmington, Delaware 19801 as its agent for service of process.

5. Defendant Verizon Data Services LLC is a Delaware limited liability company with its principal place of business at One East Telecom Parkway, B3E, Temple Terrace, Florida 33637. Verizon Data Services LLC has designated CT Corporation System, 1999 Bryan St., Suite 900, Dallas, Texas 75201 as its agent for service of process.

6. Defendant Verizon Business Global, LLC is a Delaware corporation with its principal place of business at One Verizon Way, Basking Ridge, New Jersey. Verizon Business Global, LLC may be served with process via its registered agent Corporation Trust Company, Corporation Trust Company Center, 1209 Orange Street, Wilmington, Delaware 19801.

7. Defendant Verizon Services Corp. is a Delaware corporation with its principal place of business at 1717 Arch Street, 21st Floor, Philadelphia, PA 19103. Verizon Services Corp. may be served with process via its registered agent CT Corporation System, 1999 Bryan Street, Suite 900, Dallas, Texas 75201.

8. Defendant Verizon Patent and Licensing Inc. is a Delaware corporation with its principal place of business at One Verizon Way, Basking Ridge, New Jersey 07920.

JURISDICTION AND VENUE

9. This action includes a claim of patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 1 et seq. This Court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a) and under the Federal Declaratory Judgment Act, 28 U.S.C. § 2201 and 2202.

10. This Court has personal jurisdiction over Defendants at least by virtue of their consent to the personal jurisdiction of this Court by filing of their counterclaims in this Court.

11. Venue is also proper in this district at least because Verizon has submitted to personal jurisdiction in this Court and has consented to this venue by filing its counterclaims here.

COUNT ONE: DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF VERIZON'S '111 PATENT

12. Huawei incorporates by reference the preceding paragraphs as if fully set forth herein.
13. Verizon has asserted that Huawei infringes the '111 Patent.
14. An actual, substantial, and continuing justiciable controversy exists between Verizon and Huawei with respect to infringement of the '111 Patent.
15. Huawei has not infringed and does not infringe any valid and enforceable claim of the '111 Patent literally, directly, indirectly (such as contributorily or by way of inducement), willfully, or under the doctrine of equivalents.
16. There is an actual controversy, within the meaning of 28 U.S.C. §§ 2201 and 2202, between Verizon and Huawei as to whether Huawei has infringed or infringes any valid and enforceable claim of the '111 Patent.
17. A judicial declaration concerning these matters is necessary and appropriate so that Huawei can ascertain its rights regarding the '111 Patent.

**COUNT TWO: DECLARATORY JUDGMENT OF NON-INFRINGEMENT OF VERIZON'S
'288 PATENT**

18. Huawei incorporates by reference the preceding paragraphs as if fully set forth herein.
19. Verizon has asserted that Huawei infringes the '288 Patent.
20. An actual, substantial, and continuing justiciable controversy exists between Verizon and Huawei with respect to infringement of the '288 Patent.
21. Huawei has not infringed and does not infringe any valid and enforceable claim of the '288 Patent literally, directly, indirectly (such as contributorily or by way of inducement), willfully, or under the doctrine of equivalents.
22. There is an actual controversy, within the meaning of 28 U.S.C. §§ 2201 and 2202,

between Verizon and Huawei as to whether Huawei has infringed or infringes any valid and enforceable claim of the '288 Patent.

23. A judicial declaration concerning these matters is necessary and appropriate so that Huawei can ascertain its rights regarding the '288 Patent.

JURY DEMAND

Huawei hereby demands a trial by jury on all claims and all issues so triable.

PRAYER FOR RELIEF

WHEREFORE Huawei asks this Court for an order granting the following relief:

- a. dismissal, with prejudice, of Verizon's Counterclaims in their entirety;
- b. a judgement and order denying all relief that Verizon seeks in its Counterclaims;
- c. a judgement and order declaring that Huawei does not now and has never infringed, induced the infringement of, or contributed to the infringement of any valid and enforceable claim of the '111 or '288 Patents;
- d. a judgement and order declaring that the claims of the '111 and '288 Patents are invalid;
- e. a judgement and order that Verizon has failed to prove that Huawei violated its RAND Commitment in its negotiations with Verizon;
- f. a judgment and order that Verizon failed to prove that Huawei breached any contractual obligations in connection with its RAND Commitment;
- g. a judgment and order that Verizon rejected, repudiated, and/or forfeited any rights related to Huawei's RAND commitment;
- h. a judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding Huawei its reasonable attorneys' fees against

Verizon;

- i. any and all other relief as the Court may deem appropriate and just under the circumstances.

Dated: January 22, 2021

Respectfully submitted,

/s/ Jason D. Cassady
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*Attorneys for Plaintiff Huawei Technologies Co.
Ltd., and Counterclaim Defendants Huawei
Technologies USA, Inc., and Futurewei
Technologies, Inc.*

CERTIFICATE OF SERVICE

The undersigned certifies that the foregoing document was served on all counsel via electronic mail on this 22nd day of January, 2021.

/s/ Jason D. Cassady
Jason D. Cassady

CERTIFICATE OF AUTHORIZATION TO FILE UNDER SEAL

The undersigned certifies that the foregoing document is authorized to be filed under seal pursuant to the Protective Order submitted in this case.

/s/ Jason D. Cassady
Jason D. Cassady